

ARANEAE

Fam. Epeiridae: <i>Araneus brounii</i> (Urq.)	1	} 79 mg.
"      —	1	
" <i>Argiope</i> sp.?	4 fragments	
Fam. Tetragnathidae:	9 and fragments	

FRAGMENTS

Chitinous material 74 mg.

The food was largely broken down, and although the dragonflies and some of the spiders were in fair condition the rest of the material was fragmentary. The dry weights were taken after drying in an oven and then exposed to atmospheric conditions for 5 hours. The spider material was determined by Dr. B. Y. Main.

—J. A. L. WATSON, Zoology Department, University of Western Australia.

## HERPETOLOGICAL MISCELLANEA

By L. GLAUERT, W.A. Museum, Perth

### VIII.—SNAKE LIZARDS AND WORM LIZARDS (FAMILY PYGOPODIDAE)\*

Body much elongated, snake-like, fore limbs entirely absent externally, hind limbs much reduced, in *Aprasia* hardly visible. Head covered with regular shields except in *Lialis*. Abdominal scales often transversely enlarged but never extending right across the body as in snakes. Tail when normal, except in *Aprasia*, much longer than the head and body, fragile and easily replaced. Ear visible except in *Aprasia*.

#### KEY TO THE GENERA

- a.—Head covered with large shields.
  - b.—Preanal pores present.
    - c.—10-14 preanal pores, frontal longer than the prefrontal ..... *Pygopus*
    - ce.—4 preanal pores, frontal much smaller than the prefrontal ..... *Paradelma*
  - bb.—Preanal pores absent.
    - d.—Parietals present large.
      - e.—Body scales smooth ..... *Delma*
      - ee.—Body scales with two keels ..... *Pletholax*
    - dd.—Parietals absent..... *Aprasia*
- aa.—Head covered with small scales ..... *Lialis*

#### GENUS *Pygopus*

Snout rounded, head covered with large symmetrical shields; frontal much larger than the prefrontal. Ear-opening exposed. Scales hexagonal, overlapping, two central series on the abdomen

\* No. VI of this series, Geckonidae (Part II), appeared on p. 49. No. VII, on *Egernia striolata douglasi*, appeared on p. 117.

transversely enlarged. Hind limbs paddle-shaped, large, larger in the male than in the female. 10 to 16 preanal pores. Tail much longer than the head and body.

#### KEY TO THE SPECIES

- a.—Scales more or less keeled dorsally.  
b.—Keels sharp ..... *lepidopodus*  
bb.—Keels blunt ..... *nigriceps*  
aa.—Scales above and below smooth ..... *baileyi*

#### *Pygopus lepidopodus* (Lacep.)

##### Scale-footed Lizard

Body snake-like, tail much longer than the head and body, easily shed and replaced; head round in front, not depressed, covered with large shields, ear opening distinct, smaller than the eye. 20 to 24 rows of overlapping scales around the middle of the body, the dorsals each with a single sharp keel extending on to the tail, from 68 to 88 paired ventrals. Paddle-shaped hind limbs proportionally larger than in the other Pygopodids, longest in the males. 10 to 16 preanal pores.

Colour (in spirits) rather variable. Usually dull grey or slate-olive to dull greenish-black, often with longitudinal rows of rectangular blackish spots, which may or may not be light edged. The head is not darker than the body. Under surface very variable. It may be whitish with dark grey marblings, or marbled becoming darker on the tail, or the whole under surface coloured like the back.

This lizard grows to a length of about 2 ft. (600 mm.).

Distribution in this State is extensive throughout the southern half, from Yalgoo and Northampton in the north to the south coast and inland to Norseman, Kalgoorlie, Karonie and Eucla.

It is not as common as *Lialis*.

#### *Pygopus baileyi* (Guenther)

##### Bailey's Scale-footed Lizard

Structurally very close to the preceding species but with more numerous, up to 120, paired ventrals, 22 rows of smooth scales around the body, and a different coloration.

In spirits the head is pale cream with dark brown markings confined to a band across the head through the eye on to the lower jaw. The general colour of the body is pinkish- or yellowish-olive, the edges of the scales being dark brown producing a reticulated effect dorsally, though on the sides the pigmentation is inclined to result in diagonal lines sloping backwards.

The species is a member of the northern fauna, extending as far south as Winchester in the west and to Kalgoorlie and Karonie in the east.

*Pygopus nigriceps* (Fischer)

Black-headed Scale-footed Lizard

This lizard first collected at Nickol Bay has been recorded from Laverton by Kinghorn but is not represented in the Museum collection. In general appearance it is close to a young *P. baileyi*, from which it differs in having keeled dorsal scales whilst those of *P. baileyi* are perfectly smooth. It must be remarked that the colour pattern is very close to that of a young *P. baileyi* of similar size. It is possible that the two are identical, in which case the name *baileyi* is a synonym of *nigriceps*, which has priority.

GENUS *Paradelma*

Snout somewhat tapering, covered with large symmetrical shields, prefrontal much larger than the frontal, ear opening small. Scales smooth, circular, overlapping. Two enlarged preanal scales, four preanal pores.

This genus has not yet been recorded from Western Australia but as it will probably be found in the far north its characters are given here.

GENUS *Delma*

Head somewhat tapering, snout rounded, covered with large symmetrical shields; prefrontal and frontal approximately of equal size. Ear exposed. Scales smooth, circular or hexagonal, overlapping. The two median ventral series and the single sub-caudal transversely enlarged. Hind limb, paddle-shaped, small. No preanal pores.

KEY TO THE SPECIES

- a.—One pair of frontonasals, third upper labial under the eye, three anal scales ..... *tincta*
- aa.—Two pairs of frontonasals, fourth upper labial under eye, three anal scales ..... *fraseri*

*Delma tincta* (De Vis)

Northern Scale-footed Lizard

Snout somewhat rounded, prefrontal larger than the frontal, frontal about as long as wide, parietals longer than the prefrontal, each bordered behind by a narrow elongated scale, their tips separated by an azygous scale. Five or six upper labials, the elongated third being under the eye. Ear opening about half the diameter of the eye, the distance from the eye to the ear greater than from the eye to the tip of the snout. Scales around the body in 14 rows, ventrals in a double series of transversely enlarged scales. Tail, when complete, three times the length of the head and body with a single series of transversely enlarged scales below.

Measurements of a complete individual, head and body, 3 $\frac{3}{8}$  in. (85 mm.); tail, 10 $\frac{1}{4}$  in. (255 mm.).

Colour (in spirits) ranging from brown to buff above and whitish below. Head in young specimens almost black, the snout

paler and four narrow white cross bands, the first in front of the eyes, the second just behind, the third which widens below covers the ears, and the fourth on the nape; in older individuals they become indistinct or disappear entirely except laterally. The lower surface is immaculate except where the dark areas on the head extend to the lower lip.

Distribution extends from the Kimberley Division in the north to the Geraldton area in the south. All the Museum specimens are more or less coastal in origin.

As the presence of this species in Western Australia is so far from the type area, a fuller description than usual has been given.

### *Delma fraseri* Gray

#### Fraser's Scale-footed Lizard

Head not elongated nor depressed, snout rounded, as long as the distance between the eye and the ear. Ear opening elliptical. Tail much longer than the head and body, rarely entire. Hind limbs of the male as long as the snout, those of the female shorter. Frontal smaller than the prefrontal, longer than wide; parietals larger than the prefrontal, bordered behind by enlarged scales which are not elongated. Six upper labials, the fourth under the eye. Scales around the middle of the body in 16 rows.

Colour very variable, brighter in the young. Adults dark olive-grey above and below. Upper lip, chin and part of the chest whitish with a number of slender extensions of the colour of the upper surface which do not meet on the chin and throat. Younger individuals have the head blackish, the dark extensions less numerous but more pronounced and meeting under the chin and throat. Rest of the under surface pale, almost white in the young.

Measurements of an individual, head and body 4¾ in. (120 mm.); tail, 12½ in. (320 mm.).

Distribution is very wide in this State, from the Kimberleys in the north to the south coast, and from the west coast eastwards to the Canning Stock Route.

### *Pletholax gracilis* Cope

#### Slender Snake Lizard

A long slender lizard with a pointed head reminiscent of *Lialis*. Head covered with large symmetrical shields, the parietals the largest. All the scales of the body and tail with two sharp keels, in 16 rows around the centre of the body, three preanal scales. Tail much longer than the head and body, hind limbs very small.

Total length of the largest specimen, 303 mm. (about 12 in.); tail 220 mm. (about 8¾ in.).

Colour of a living male in nuptial dress, olive buff, head and a line along the dorso-lateral row of scales antique brown, each scale with a black spot; chest and throat lemon-yellow; rest of the lower surface whitish.

Distribution mostly near Perth but a single specimen has been collected at Coomberdale, 100 miles to the north. Also known from

the Mandurah district, 50 miles south. The locality where the type was obtained cannot be determined.

### GENUS *Aprasia*

A small worm-like species closely resembling the Blind Snake in general appearance. The head and body are of the same dimensions throughout and the tail often so, except close to the tip, though in others it tapers gradually for some distance (in replacements). The tail is always shorter than the head and body and often replaced wholly or in part. The projecting snout is an efficient burrowing organ, for the lizard is fossorial in habit, spending most of its life underground. Specimens have been found two or three feet below the surface. The shortening of the head has resulted in the reduction or disappearance of the parietals which are scarcely larger than the adjacent scales. There is no trace of the fore limbs and the hind limbs are reduced to tiny scale-like appendages. There is no external ear. The lizard is small compared with the other members of the family, never attaining a length of 7 in. (170 mm.).

#### KEY TO THE SPECIES (after Parker)

- a.—A postocular shield present, nasal and second labial in contact.
  - b.—Snout prominent, a suture runs from the nostril to the second labial ..... *striolata*
  - bb.—Snout less prominent, no suture running from the nostril ..... *pulchella*
- aa.—No postocular shield, nasal and second labial not in contact ..... *repens*

#### *Aprasia striolata* (Luetken)

##### Striated Worm Lizard

Snout prominent and rounded, a suture normally connects the nostril with the suture between the first and second labials so that the nasal and the second labial are in contact. A small postocular present. Ear hidden. Scales usually in 12 rows occasionally in 14.

Colour in spirits usually greyish with numerous rows of dots forming well-defined lines, which often fade in time.

Length to 5½ in. (133 mm.).

Distribution is limited to southern areas from Tambellup, Albany, Narrikup and Eyre. It is known from the Eastern States.

#### *Aprasia pulchella* (Gray)

##### Pretty Worm Lizard

Snout less prominent than in the preceding species and more rounded, no suture running from the nostril; nasal fused with the first labial, forming a suture with its fellow; a postocular present. Ear hidden. 14 rows of smooth scales around the middle of the body. No external traces of the hind limbs.

Colour (in spirits) very pale brown with a number of dark brown lines along the dorsal surface composed of a dot on each

scale; one of these lines passes through the eye to the snout; irregular dark markings on the head. Under surface coloured like the back but immaculate.

Distribution widespread in southern Western Australia from Geraldton southwards but absent on the Goldfields.

### *Aprasia repens* (Fry)

#### Fry's Worm Lizard

Snout strongly projecting; a suture joins the nostril to the prefrontal, nasal fused with the first labial, which is in contact with the prefrontal; no postocular; the fourth upper labial in contact with the supraocular; two somewhat enlarged scales, behind and separated by the frontal, may represent the parietals. Scales smooth, in 12 rows around the body.

The colour (in spirits) straw-coloured or greyish above and below; on the upper surface each scale with a blackish dot which dorso-laterally may form distinct unbroken lines. As is usual the pattern is not continued on to the replacement which is accordingly yellowish. In the specimens from the Monte Bello Group, found on Hermite Island, the dark markings are more or less confined to the dorso-lateral area.

The distribution within the State is very wide, from Hermite Island in the north, Geraldton, Newmarraacarra and Eradu to the south coast and inland to the Stirling Range, Dumbleyung and Borden. It has also been found to be rather common on Rottnest.

### GENUS *Lialis*

Body snake-like, head pointed, external ear present, hind limbs minute, longer in the male; head covered with small irregular shields, scales on the body and tail smooth, pointed, overlapping, the two median series of ventrals and the central series of sub-caudals transversely enlarged. Four preanal pores.

### *Lialis burtonii* Gray

#### Common Snake Lizard

Snout narrow, depressed long tapering; snout truncate at the tip; eye small; ear almost slit-like, nostril small in a small nasal; number of upper and lower labials variable, numerous. 19 or 21 rows of smooth scales around the middle of the body; 70-100 pairs of ventrals; three or five anals; four preanal pores. Numbers of caudals very variable as the tail is so often mutilated and in process of regrowth, when entire longer than the head and body.

In one case head and body,  $8\frac{3}{4}$  in. (221 mm.); tail,  $10\frac{3}{4}$  in. (274 mm.).

Colour very variable. There are a number of constant varieties which have led to an extensive synonymy but recent researches have led to the conclusion that there is one species only in Western Australia.

The distribution is almost State-wide, from Wyndham in the north to the south coast, and inland to the Canning Stock Route. It is well known in the Eastern States.